

ABSTRACT OF THE DISCLOSURE

A digital film grain (20) comprises a phototransistor (40) which produces an electrical signal having a strength which is related to an input radiation flux. A transponder receives commands and power from a base station 5 (80) and transmits information quantifying the radiation observed by that digital film grain. An image accumulator (84) connected to the base station (80) assembles an image from the profile of radiation reported by a distribution of digital film grains correlated to the locations of those grains.